

Air-Entraining **BONDCRETE**[®] Mason's Lime

GRAYMONT DOLIME (OH) INC. Building Lime Products

Description

Air-entraining BONDCRETE[®] Mason's Lime is a finely ground, white, high-purity dolomitic lime, pressure hydrated for immediate use. When properly combined with portland cement and sand, it creates a lime mortar having superior performance and ageless durability.

BONDCRETE[®] Mason's Lime is specially formulated to develop high plasticity and excellent water retention. The formulation permits a controlled volume of minute air bubbles to mix with the mortar. This entrained air goes completely through the mix and takes the water with it. The result is a deeply penetrating mortar that handles easily and contributes to better masonry construction at lower cost. Air-entraining BONDCRETE[®] Lime complies with ASTM C207, Type SA. Available in durable 3-ply, weather-resistant 50-lb. bags.

Uses

Recommended for all Type M, S, N and O cement-lime mortar (ASTM C270) applications in interior and exterior masonry walls.

Advantages

High Plasticity

Provides a highly workable mortar with excellent spread under light trowel pressure and uniform adherence to masonry units. Carries more sand than most masonry cements or mortar cements for better yield without sacrificing workability.

Excellent Water Retentivity

Increases workability and bonding characteristics, reduces segregation of materials, requires less retempering of mortar during use. BONDCRETE[®] Mason's Lime mortar resists suction, even from dry masonry, leaves ample time to strike joints. Makes a mortar particularly suited for hot-weather construction.

Balanced Strength

Permits optimum balance between workability and bond strength; provides adequate compressive and tensile strength to accommodate structural movement, plus elasticity to absorb normal stresses from winds and vibration.

Weather Resistance

Offers tight, uniform bond to resist water penetration, helps prevent efflorescence, leaky walls and frost damage. Self-healing properties of BONDCRETE[®] Mason's Lime repair fine cracks for many years after construction.

Lower Costs

Costs less per mix than most masonry cements or mortar cements, saves up to 30% in cementitious material cost per cu. yd. mortar. Easily mixed, makes a richer mortar that carries more sand, works easier. Masonry units lay up faster with less waste and "shake-up" time for greater on-site production.

Technical Data

ASTM C270 Specifications

Mortar Type	Physical Properties		Proportions by Volume		
	Min. Ave. Comp. —PSI 28 Days	Water Retention % Min.	Cement ^(1,2)	Lime ⁽³⁾	Sand ⁽⁴⁾
M	2500	75	1	1/4	2.8 to 3 3/4
S	1800	75	1	1/4 to 1/2	3.4 to 4 1/2
N	750	75	1	1/2 to 1 1/4	3.4 to 6 3/4
O	350	75	1	1 1/4 to 2 1/2	5.1 to 10 1/2

NOTES: (1) Portland Cement-To comply with ASTM C150, Type I,II,III.
(2) Blended Hydraulic Cements - to comply with ASTM C595, Types IS, IP or I(PM).
(3) Lime-To comply with ASTM C207 (Hydrated) Type SA
(4) Sand Aggregate-To comply with ASTM C144.

Average Test Results

Mortar Type	Volume Proportions ⁽¹⁾	Air-Entraining BONDCRETE [®] Mason's Lime		Water Retention -% ⁽²⁾
		Comp. Strength-PSI 7 Days	Comp. Strength-PSI 28 Days	
S ⁽³⁾	1: 1/2 : 4 1/2	4267	4973	87
N	1: 1: 6	2067	2550	89
O	1: 2: 9	555	774	90

NOTES: (1) Cement: Mason's Lime: sand.
(2) Based on materials having an initial flow of 110± 5%.
(3) Test results exceed requirements for Type M mortar.

Letters of certification of compliance of BONDCRETE[®] to ASTM C207 specifications are available.



GRAYMONT

GRAYMONT DOLIME (OH) INC.
P.O. Box 158
Genoa, OH, USA 43430
1.800.537.4489
www.graymont-oh.com

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Good Design Practices

1. Specifications below are offered as desirable inclusions in any masonry work, but are not intended to be complete.
2. Generally, masons consider a 94-lb. bag of Portland Cement and a 50-lb. bag of hydrated lime to each equal one cu. ft. and would add 6 cu. ft. sand to make a 1: 1: 6 mix. Actually, a bag of hydrated lime equals about 1 1/4 cu. ft.
3. Environmental Conditions -- Refer to the Masonry Industry Council Publication "Hot & Cold Weather Masonry Construction" (1999).

Architectural Specification

Part 1: General

1.1 Scope

Specify to meet project requirements.

1.2 Delivery and Storage of Materials

All materials shall be delivered in their original unopened packages, containers or bundles, and stored in a place providing protection from damage, deterioration and contamination. Damaged, deteriorated or contaminated materials shall be removed from the premises.

1.3 Environmental Conditions

In cold weather, temperature of masonry materials shall be above freezing when placed. Masonry shall be protected from freezing for 48 hrs. after placing. Unless precautions against freezing are taken, masonry shall not be erected when temperature is below 32° F on a rising temperature, or below 40° F on a falling temperature. Masonry shall not be laid on walls or footings that are frozen or contain frost. (See Good Design Practices Note 3 above).

Part 2: Products

2.1 Materials

- a. Portland Cement—Conforming to ASTM C150, Type I.
- b. Hydrated Lime— Air-Entraining BONDCRETE® Mason's Lime, conforming to ASTM C207, Type SA.
- c. Aggregate—Sand conforming to ASTM C144.
- d. Water-Clean and free of deleterious amounts of acids, alkalies and organic materials.

2.2 Mixes

- a. Type M Mortar, shall be mixed in proportion of one bag Portland Cement, one-quarter bag BONDCRETE® Mason's Lime, to not more than 3 3/4 cu. ft. sand (1: 1/4 : 3 3/4).
- b. Type S Mortar shall be mixed in proportion of one bag Portland Cement, one-half bag BONDCRETE® Mason's Lime, to not more than 4 1/2 cu. ft. sand (1: 1/2: 4 1/2).
- c. Type N Mortar shall be mixed in proportion of one bag Portland Cement, one bag BONDCRETE® Mason's Lime, to not more than 6 cu. ft. sand (1: 1: 6).
- d. Type O Mortar shall be mixed in proportion of one bag Portland Cement, 2 bags BONDCRETE® Mason's Lime, to not more than 9 cu. ft. sand (1: 2: 9). Limited exterior use.

Part 3: Execution

3.1 Unit Masonry Preparation

Highly absorbent masonry units shall be wetted (not soaked) before laying.

3.2 Mixing Mortar

Proportion ingredients accurately and mix for at least 5 minutes in mechanical batch mixer with enough water to produce a workable consistency.

3.3 Mortar Application

Lay mortar in a uniform bed and completely fill joints between masonry units.

WARNING:

MAY CAUSE EYE OR SKIN BURNS. HARMFUL IF SWALLOWED.

CONTAINS: Hydrated Lime (calcium magnesium hydroxide)

Avoid contact with eyes or skin.

Do not take internally.

Avoid breathing lime dust.

Always wear NIOSH approved eye goggles when handling lime. In case of eye contact flush eyes thoroughly, including under eyelids, with water for 15 minutes. CALL PHYSICIAN IMMEDIATELY.

Wear protective clothing to prevent skin contact. If skin contact occurs, wash with water. Should skin irritation continue, SEE PHYSICIAN.

If swallowed CALL PHYSICIAN IMMEDIATELY.

Ventilate or use dust collector to prevent airborne lime dust. If there is airborne lime dust use a NIOSH approved dust respirator.

Do not use this material on playing fields or children's play areas.

KEEP OUT OF REACH OF CHILDREN.

Hazardous ingredient info - (419) 855-8336

NOTICE: There are no warranties which extend beyond the description contained herein. We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within 30 days from the earlier of the date it was or reasonably should have been discovered.